Session Outline
ACSM Health and Fitness Summit
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Current Controversies in Exercise Prescription
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Summary
The global pandemic of physical inactivity and the associated burden of chronic diseases has caused public health officials to term physical activity as “the most important public health problem of our time”. Health and Fitness Professionals are at the forefront of the “battle on physical inactivity”, and the exercise prescription is our “weapon”. Individualizing and optimizing the exercise prescription according to individual goals, habitual physical activity, and health status can facilitate adoption and maintenance of a program of regular exercise. Recommendations for exercise and physical activity present targets for frequency, intensity and duration of exercise where most people will gain health and fitness benefits. However, exercise responses are highly variable and amounts of exercise that are lower and higher can give benefit. In this session, an overview of the newest recommendations for exercise prescription will be reviewed with a special emphasis on areas of controversy such as, “Is vigorous exercise better than moderate intensity exercise?”, “How much exercise is too much—or too little?”, “Can High Intensity Interval Training replace more traditional exercise?“.

Outline
1) Introduction and Overview
   a) Wow—how many people are inactive? It costs us how much?
   b) Health Fitness professionals at the forefront
   c) Network of public health, healthcare and fitness industry
2) What’s in the Health Fitness ExRx Toolbox?
   a) Theoretical Base
   b) Scientific Evidence guided principles
   c) Creativity
3) Birdseye view: What’s new in ACSM ExRx Guidelines
   a) Something is better than nothing
   b) Targets that yield benefits for most people
   c) Menu of Exercises
      i) Addition of neuromotor exercise
         (1) Involving motor skills
         (2) Multimodal activities such as Tai Chi, Pilates, and yoga.
      d) FITT-VP framework
         i) Frequency, Intensity, Time (duration), Type, Volume and Progression
ii) Volume is intensity x duration x frequency

(1) MET-minutes/week

(a) **Example**: jogging (at ~7 METs) for 30 minutes on 3 days per week:

\[ 7 \text{ METs} \times 30 \text{ min} \times 3 \text{ times per week} = 630 \text{ MET-minutes per week} \]

e) Concurrently reducing sedentary time (TV watching, computer time) while also increasing exercise is important for health

f) Ask about signs and symptoms of heart disease--even in regular exercisers

g) Application of Theoretically Based Health Behavior Strategies

4) Controversies

a) Reducing Sedentary time as part of ExRx?

b) Moderate vs. High Intensity?

c) HIIT vs. Continuous Exercise?

d) Resistance vs. Aerobic Training: Relative Health Benefits?

e) Stretching Before or After Exercise?

f) Risks of Exercise?

g) Screening vs. Exercise Testing?

5) Three take-away points

a) There is a “Menu” of approaches for safe and health-promoting exercise

b) Importance of scientific evidence informed techniques

c) ExRx is best tailored to Individual goals, health, status and individual responses.

6) Selected References


shorter periods of moderate to vigorous exercise (cycling) in sedentary subjects when energy expenditure is comparable. *PLoS One*, 8(2), e55542. doi: 10.1371/journal.pone.0055542


